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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks*SK*

Office Action Summary	Application No. 09/232,289	Applicant(s) Bjorndahl
	Examiner Pablo Tran	Group Art Unit 2684

Responsive to communication(s) filed on _____.

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-35 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-35 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

***Certified copies not received: _____.**

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-12, 16-23, 27-32 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of copending Application No. 09/022,289. Although the conflicting claims are not identical, they are not patentably distinct from each other because they disclosed a communication system for secure wireless communications..

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1, 12 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by

Felsenstein (5,608,723).

Per claim 1, *Felsenstein* disclosed a communication system for secure wireless communications, said communications system comprising:

- a first device (fig. 4/no. 66) having transceiving means therein for communicating in a first and a second communication mode ; and

- a second device (fig. 4/no. 70), in wireless communication with said first device, said first and second devices wirelessly communicating in said first communication mode using an infrared signal and in said second communication mode using a radiofrequency signal (abstract, fig. 1-4, col. 3/ln. 6-col. 5/ln. 40).

As per claim 12, *Felsenstein* further disclosed wherein said communication system is a cordless system (abstract, fig. 1-4, col. 3/ln. 6-col. 5/ln. 40).

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As per claim 27, *Felsenstein* disclosed a transceiving device for secure wireless communications in a communications system, said device comprising:

- radiofrequency transceiving (fig. 3/no. 42) means for transceiving a plurality of radio frequency transmission within said communications system; and
- infrared transmission (fig. 3/no. 44) means for transceiving a plurality of infrared transmissions within said communication system.

As per claim 28, *Felsenstein* further disclosed wherein said infrared transmission means comprises:

- a photodetector (fig. 3/no. 50) for receiving said infrared transmissions; and
- an infrared emitter (fig. 3/no. 44) for transmitting said infrared transmissions.

As per claim 29, *Felsenstein* further disclosed wherein said infrared emitter comprises a light-emitting diode (fig. 1-4, col. 3/ln. 6-col. 5/ln. 40).

5. Claims 13-15, 24-31, are rejected under 35 U.S.C. 102(b) as being anticipated by *Israelsson* (5,479,595).

As per claims 13, 24, and 33, *Israelsson* disclosed wherein said first and second devices are each selected from the group consisting of:

- mobile telephone, home base stations, Sim cards, heads sets, computers, printers, plotters, projectors, facsimile devices, pagers, data organizers, computer terminals, scanners, microphones, PC cards, televisions, radios, stereos, VCRS, light devices, dimmers, thermostats,

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doors, refrigerators, freezers, ovens, washers, dryers, answering machines, home alarms, car alarms, and other peripheral and portable devices (abstract, fig. 1-2, col. 2/ln. 6-18)

As per claims 14, 25, and 34, *Israelsson* disclosed wherein said first and second devices communicate on a radio frequency band range from about 2.4 GHZ to about 2.483 GHZ (abstract, fig. 1-2, col. 5/ln. 47-col. 8/ln. 13).

As per claims 15, 26, and 35, *Israelsson* disclosed wherein said band is at about 2.45GHZ (abstract, fig. 1-2, col. 5/ln. 47-col. 8/ln. 13).

As per claim 27, *Israelsson* disclosed a transceiving device for secure wireless communications (fig. 6, col. 5/ln. 12-46) in a communications system, said device comprising:

- radiofrequency transceiving (fig. 6/no. 44) means for transceiving a plurality of radio frequency transmission within said communications system; and
- infrared transmission (fig. 6/no. 32,33) means for transceiving a plurality of infrared transmissions within said communication system.

As per claim 28, *Israelsson* further disclosed wherein said infrared transmission means comprises:

- a photodetector (fig. 6/no. 33) for receiving said infrared transmissions; and
- an infrared emitter (fig. 6/no. 32) for transmitting said infrared transmissions.

As per claim 29, *Israelsson* further disclosed wherein said infrared emitter comprises a light-emitting diode (fig. 6, col. 5/ln. 12-46).

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As per claim 30, *Israelsson* further disclosed wherein said transceiving device switches transceiving from said radio frequency means to said infrared transceiving means prior to the transmission of an infrared security message within said communication system (fig. 6, col. 5/ln. 12-46).

As per claim 31, *Israelsson* further disclosed wherein, after the transmission of said infrared security message, said transceiving device switches transceiving to said radio transceiving means (fig. 6, col. 5/ln. 12-46).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Felsenstein* (5,608,723) in view of *Israelsson* (5,479,595).

As per claims 2 and 3, *Felsenstein* disclose Applicant's invention except teaching wherein said first and second devices transceive a plurality of messages therebetween in said second communication mode, wherein, prior to transceiving a security message therebetween, said first and second devices switch transceiving to said first communication mode, and transmit said security message in said first communication mode. *Israelsson* disclosed providing said first and second devices transceive a plurality of messages therebetween in said second communication

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mode, wherein, prior to transceiving a security message therebetween, said private base station and said mobile station switch transceiving to said first communication mode, and transmit said security message in said first communication mode (fig. 6, col. 5/ln. 12-46). In order to switch from radio frequency transmission to infrared transmission (or vice versa) to allow transmission through either transmission mode, it would have obvious to one of ordinary skill in the art at the time of Applicant's invention to provide a mobile telephony system as taught by *Israelsson* in conjunction with a systems for secure wireless communication as taught by *Felsenstein*.

As per claims 4 and 7, the combination of *Felsenstein* and *Israelsson* teaches wherein said security message comprises a plurality of encryption keys for the subsequent encryption of a plurality of said messages transceived in said second communication mode (see *Felsenstein*, figs. 3-4, col. 3/ln. 3/ln. 6-col. 5/ln. 40).

As per claim 5, the combination of *Felsenstein* and *Israelsson* teaches wherein upon said mobile station switching said transceiving to said first communication mode, said second device transmits an infrared request message to said first device (see *Felsenstein*, figs. 3-4, col. 3/ln. 3/ln. 6-col. 5/ln. 40).

As per claim 6, the combination of *Felsenstein* and *Israelsson* teaches wherein said first device, upon receipt of said infrared request message, transmits said security message to said second device (see *Israelsson*, fig.1-6, col. 3/ln. 31-col. 5/ln. 30).

8. Claims 8-11, 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Felsenstein* (5,608,723) in view of *Zavrel* (5,585,953).

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As per claims 8, 10, and 16, *Felsenstein* disclose Applicant's invention except wherein switching means for switching between said infrared and radiofrequency transceiving means. *Zavrel* disclosed a switching between said infrared and radiofrequency transceiving means (fig. 1, col. 1/ln. 50-67, col. 2/ln. 1-col. 3/ln. 34). In order to switch between the infrared transceiver and radio frequency transceiver to allow transmission through either radio wave or light, it would have obvious to one of ordinary skill in the art at the time of Applicant's invention to provide an IR/RF radio transceiver method as taught by *Zavrel* in conjunction with a systems for secure wireless communication as taught by *Felsenstein*.

As per claims 9 and 11, the combination of *Felsenstein* and *Zavrel* teaches wherein said infrared transceiving means comprises:

- a photodetector (fig. 1/no. 26) for receiving said infrared signals from said first device; and
- an infrared emitter (fig. 1/no. 24) for transmitting said infrared signals to said first device.

As per claim 17, the combination of *Felsenstein* and *Zavrel* teaches wherein prior to said establishment of said secure communication link, said first and second operated in said radiofrequency mode (see *Zavrel*, fig. 1, col. 1/ln. 50-67, col. 2/ln. 1-col. 3/ln. 34).

As per claim 18, the combination of *Felsenstein* and *Zavrel* teaches wherein in said step of forwarding, said first device forwards said infrared request message to said second device, and

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said second device, upon receipt of said infrared request message, replies with an infrared reply message (see Zavrel, fig. 1, col. 1/ln. 50-67, col. 2/ln. 1-col. 3/ln. 34).

As per claim 19, the combination of *Felsenstein* and *Zavrel* teaches wherein said security message comprises a plurality of encryption keys for the subsequent encryption of a plurality of transmissions in said radiofrequency mode (see *Felsenstein*, figs. 3-4, col. 3/ln. 3/ln. 6-col. 5/ln. 40).

As per claim 20, the combination of *Felsenstein* and *Zavrel* teaches the telecommunication system further comprising, after said step of transferring said security message, the step of establishing a radiofrequency communication link between said first and second devices in said radiofrequency mode (see *Zavrel*, fig. 1, col. 1/ln. 50-67, col. 2/ln. 1-col. 3/ln. 34).

As per claim 21, the combination of *Felsenstein* and *Zavrel* does not specifically teach the security poll signal, the combination of *Felsenstein* and *Zavrel* teaches security signal. It would have been obvious to send the security signals as security poll signals in order to easily detect each signal.

As per claims 22 and 23, the combination of *Felsenstein* and *Zavrel* teaches wherein the security poll signal occurs periodically and randomly (see *Felsenstein*, figs. 3-4, col. 3/ln. 3/ln. 6-col. 5/ln. 40).

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Israelsson* (5,479,595) in view of *Herlin et al.* (5,915,021).

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As per claim 32, *Israelsson* disclose Applicant's invention except teaching wherein said infrared transmission comprises a plurality of encryption keys for the subsequent encryption of a plurality of said radiofrequency transmissions between said mobile station and said private telecommunications system. *Herlin* disclosed said infrared transmission comprises a plurality of encryption keys for the subsequent encryption of a plurality of said radiofrequency transmissions between said mobile station and said private telecommunications system (fig. 1, col. 4, ln. 14-67, col. 6, lines 56-67). In order to provide security in message transmission, it would have obvious to one of ordinary skill in the art at the time of Applicant's invention to provide a plurality of encryption keys as taught by *Herlin* in conjunction with a mobile telephony system as taught by *Israelsson*.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Iwasaki (5,034,997) teaches communication system for data transmission and reception using radio wave and optical transmission of message signals.

Borras et al (5,301,353) teaches communication system and apparatus.

Yen (5,812,293) teaches a signal transmission remote control system.

Crimmins et al (5,917,425) teaches IR/RF locator.

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Rune (5,850,444) teaches method and apparatus for encrypting radio traffic in a telecommunications network.

Walker et al (5,659,883) teaches selection between separately received message in diverse frequency remote control communication system.

Ishii (5,404,572) teaches radio communication apparatus which can be tested by radio and optical test signals.

Sato (4,904,993) teaches remote control apparatus with selectable RF and optical signal transmission.

11. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Pablo Tran whose telephone number is (703)308-7941. The fax number for this Group is (703)308-6306 and (703)308-6296.

Any inquiry of a general nature to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)305-3900.

October 23, 2000

Pablo Tran

Examiner, Art Unit 2684


THANH CONG LE
PRIMARY EXAMINER

Application/Control Number: 09232289

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